

**ABSTRACT**

An intrusion detection system and method are provided that can utilize impulse radio technology to detect when an intruder  
5 has entered a protection zone. In addition, the intrusion detection system and method can utilize impulse radio technology to determine a location of the intruder within the protection zone and also track the movement of the intruder within the protection zone. Moreover, the intrusion detection system and  
10 method can utilize impulse radio technology to create a specially shaped protection zone before trying to detect when and where the intruder has penetrated and moved within the protection zone.

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